

**Office of Oversight  
Review of the  
Occupational Medicine Program  
at the  
Fernald Environmental Management Project**



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**Office of Environment, Safety and Health**

## TABLE OF CONTENTS

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	Page
ACRONYMS.....	iii
1.0 INTRODUCTION.....	1
2.0 RESULTS .....	6
3.0 OPPORTUNITIES FOR IMPROVEMENT .....	9
APPENDIX A.....	10



## ACRONYMS

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AAAHC	Accreditation Association for Ambulatory Health Care
DOE	Department of Energy
DOE-FEMP	DOE Fernald Environmental Management Project Office
EM	Office of the Assistant Secretary for Environmental Management
ES&H	Environment, Safety and Health
FEMP	Fernald Environmental Management Project
FY	Fiscal Year
IH	Industrial Hygiene
ISM	Integrated Safety Management
OH	DOE Ohio Field Office



# OFFICE OF OVERSIGHT REVIEW OF THE OCCUPATIONAL MEDICINE PROGRAM AT THE FERNALD ENVIRONMENTAL MANAGEMENT PROJECT

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## 1.0 INTRODUCTION

This report provides site-specific results on a Department of Energy (DOE) Office of Oversight review of the occupational medicine program at the Fernald Environmental Management Project (FEMP). The review at FEMP is one portion of a recently initiated independent oversight review of occupational medicine programs across the complex. The goal of this Oversight review is to identify site-specific and DOE-wide issues that require management attention and to provide a foundation for improving occupational medicine program policy and site performance.

### OVERVIEW OF THE FERNALD ENVIRONMENTAL MANAGEMENT PROJECT (FEMP) AND ITS OCCUPATIONAL MEDICINE PROGRAM

**Activities:** The mission of FEMP is to remove or dispose of all site nuclear materials, carry out decontamination and decommissioning of all site buildings and facilities, and return as much of the site as possible for public use. In support of the mission, FEMP's primary cleanup plans include excavation, treatment, and offsite disposal of the site's most contaminated materials; excavation and onsite disposal of less contaminated waste materials in an engineered, onsite disposal facility; dismantling of buildings and other structures; disposition of the remaining uranium inventory; and treatment of contaminated groundwater.

**Budget:** The total Fiscal Year (FY) 1998 budget for FEMP is approximately \$261.5 million. The budget request for FY 1999 is approximately \$277 million.

**Site:** FEMP is located on a 1,050-acre site in southwestern Ohio, approximately 18 miles northwest of Cincinnati.

**Staff:** Approximately 2,000 persons, including 50 Federal employees, work at FEMP.

**Organizations:** The Cognizant Secretarial Office is the Office of the Assistant Secretary for Environmental Management (EM). The DOE Ohio Field Office (OH) and DOE Fernald Environmental Management Project Office (DOE-FEMP) provide direction to the primary contractor and monitor contractor performance. Fluor Daniel Fernald, Inc. is the primary contractor. The International Guards Union of America, the Greater Cincinnati Building and Construction Trades Council, and the Fernald Atomic Trades Labor Council are the unions at FEMP.

**Occupational Medicine Program:** The mission of the occupational medicine program is to ensure that no worker at FEMP suffers harm as a result of their work. The goals of the occupational medicine program are to evaluate workers according to job requirements so they can perform work without harm to themselves or others; provide for early detection and treatment of illness or injury and mitigate hazards prior to exposure; and provide medical evaluations, advice, and counseling.

## **Background**

The mission of the Office of Oversight includes evaluation and analysis of DOE policies and programs in the areas of environment, safety, health, safeguards, and security. As an important element of a DOE worker safety and health program, occupational medicine programs are included within the scope of selected Office of Oversight assessment activities.

Recent Office of Oversight assessments have identified weaknesses in some aspects of occupational medicine programs at several sites. For example, an independent oversight evaluation of emergency management across the DOE complex highlighted weaknesses in the interface between occupational medicine programs and emergency management programs at several sites. Because of such weaknesses, some sites may not be adequately prepared to provide timely and effective medical treatment to workers that have been injured or exposed to hazardous materials (e.g., information on the hazardous materials may not be readily available at site or local medical treatment facilities). Similarly, reviews of occupational medicine programs at individual sites during Office of Oversight safety management evaluations indicated that occupational medicine programs at some sites are not accomplishing all of their objectives.

Collectively, the recent assessment results indicated a need for a more comprehensive review of occupational medicine programs. Correspondingly, the Office of Oversight decided to perform a review of occupational medicine programs across the complex. The first phase of the review will encompass three sites and will be completed in FY 1998. An interim report will be prepared to identify trends and issues that warrant additional review. In the second phase, additional sites will be reviewed in FY 1999 and a final report will be prepared.

Within the past year, several specific concerns as to the effectiveness of the medical program have been brought to the attention of Fluor Daniel and DOE-FEMP management. DOE-FEMP has required and Fluor Daniel is implementing a corrective action program to address the following issues:

- The administration of the Short-Term Medical Leave of Absence Program
- The completion of a Job Task Analysis for all FEMP job classifications
- The administration of the Testing Designated Positions Program
- The longstanding efforts to convert employee exposure data to an accessible data base.

## **Approach and Methodology**

The Office of Oversight decided to use a unique approach when performing the reviews of the individual sites. Specifically, the Office of Oversight expertise in assessing occupational medicine programs is being enhanced by using licensed medical physicians who specialize in occupational medicine. To obtain such expertise, the Office of Oversight has teamed with the Accreditation Association for Ambulatory Health Care (AAAHC) to perform the review.

The AAAHC is a professional organization that performs surveys of medical clinics and accredits programs that have demonstrated compliance with an established set of nationally recognized

standards. As part of the teaming agreement, the AAAHC supplied certified surveyors to supplement the Oversight team in the evaluation of the FEMP occupational medicine program.

The AAAHC participation on this review served two purposes:

- The AAAHC performed a consultative survey according to their established procedures and standards. As part of this effort, the FEMP staff completed a self-assessment (called a prereview survey in the AAAHC process) against the AAAHC standards. The site can use the AAAHC evaluation to determine their status against national standards. It also provides FEMP with AAAHC suggestions for improvement and an initial assessment of the efforts that FEMP would need to perform should FEMP decide to seek accreditation.
- The positive attributes, weaknesses, and insights from the AAAHC survey were factored into the Oversight evaluation of occupational medicine program performance. The insights from professional AAAHC surveyors were considered, in combination with other information gathered by the Office of Oversight team during interviews and tours. In this manner, the AAAHC survey was an important component of the Office of Oversight evaluation of the effectiveness of the FEMP medical program with respect to the application of current DOE policy and requirements.

This unique approach to independent oversight provided an effective and efficient method to obtain the independent perspectives of qualified and experienced medical professionals.

### **Standards for the Site-Specific Review**

This independent oversight review at FEMP focuses on the effectiveness of OH, DOE-FEMP, and contractor line management in establishing and implementing an effective occupational medicine program, as defined by applicable DOE orders and policies. The DOE policies that specifically apply to the occupational medicine program are DOE Order 440.1A, Worker Protection Management for DOE Federal and Contractor Employees, and DOE Policy 450.4, Safety Management System. DOE Order 440.1A delineates the basic program elements necessary for an occupational medicine program. It requires that contractors use a graded approach to establish medical program requirements and utilizes supplemental orders and program guidance documents to establish specific medical program expectations and requirements. DOE Policy 450.4 defines a comprehensive and coordinated program of Environment, Safety and Health (ES&H) expectations and activities that are commonly referred to as integrated safety management (ISM). All site ES&H programs, including occupational medicine programs, are to be implemented within the ISM framework.

In performing reviews of occupational medicine programs across the country, the DOE Office of Oversight asked the AAAHC to help identify medical program elements that are essential for high-quality patient care and measure program effectiveness against nationally recognized standards. DOE Headquarters Office of Occupational Medicine supports the accreditation process and is in the process of modifying DOE Order 440.1A to be more consistent with accreditation provisions and guidelines. Although not currently a specific requirement of DOE policy or the FEMP contract, the AAAHC standards generally reflect the philosophy outlined in DOE safety management policies and are relevant to all DOE sites. The AAAHC standards emphasize the quality improvement process, which is a central theme of ISM.



## Focus of the Review

Consistent with DOE policy and requirements, a comprehensive occupational medicine program performs several interrelated functions:

- **Clinic services.** Onsite medical staff perform various routine medical procedures (e.g., physical examinations, laboratory testing) to identify and treat occupational illness or injuries, ensure worker fitness for duty, facilitate recovery and safe return to work, and refer patients for further treatment as indicated. In this regard, the occupational medicine program serves as an onsite clinic and provides timely and convenient access to medical services. In some cases, access to subsidized health services is part of employee benefits packages.
- **Medical surveillance.** DOE sites often involve hazardous materials and the work at DOE sites can involve potentially hazardous conditions. Correspondingly, DOE sites need to identify job categories that could involve specific chemical, biological, or physical hazards and establish a process for routine health examinations and monitoring of employees in such categories. Such a process needs to be coordinated so that the information collected is useful and available to ensure that safety and health management has the necessary information to identify trends, protect employees, respond to requests for information from individuals and stakeholders, and ensure that accurate information is available for managers to ensure the adequacy of the health protection program.
- **Support for site efforts to monitor and control exposure to radiation and hazardous materials.** DOE sites must monitor and control radiation exposure in accordance with a radiation protection plan. Such efforts often require various methods to measure radiation exposure (e.g., whole body counts), which may be performed on a routine basis or to determine the extent of exposure or appropriate medical treatment after an incident. Similarly, DOE sites must comply with various Federal and state regulations related to worker safety and hazardous materials (e.g., Occupational Safety and Health Administration requirements for protection against exposure to hazardous substances). The occupational medicine program must coordinate with other site organizations to ensure that site hazards are identified and that appropriate measures to mitigate hazards are in place.
- **Support for emergency management preparation and response.** DOE sites must be prepared to handle emergencies and unplanned releases of radioactive or hazardous materials. Occupational medicine programs need to be able to provide support during an emergency situation (e.g., providing treatment to injured workers, coordinating support with local hospitals, ensuring that information about hazardous materials is readily available to medical personnel that treat exposure victims, and providing recommendations for protecting the public).

In performing these activities, DOE sites must maintain information about hazardous materials. Many of the materials used at DOE facilities and laboratories, such as uranium, pose significant health risks and are not commonly encountered in general industry and thus may be unfamiliar to community health care providers in the event of an accidental exposure. The occupational medicine program personnel must also be involved in keeping track of the types of hazardous materials at the site, their health effects, and recommended treatments.

The Office of Oversight review team focused on the site's ability to accomplish each of the above functions. Section 2.0 of this report identifies positive attributes, issues requiring attention, and conclusions regarding the overall effectiveness of the FEMP occupational medicine program in meeting its objectives. Section 3.0 presents opportunities for improving the current program.

## 2.0 RESULTS

### Positive Attributes

1. **OH and DOE-FEMP have integrated key elements of the occupational health program into their sitewide performance assessment program.** Industrial hygiene (IH) assessments of FEMP facilities, programs, and projects routinely include occupational medicine program criteria as part of the assessment process. Validation of medical qualifications for workers and current status of medical surveillance evaluations for workers is clearly documented in DOE IH performance assessment reports. In addition, the Federal safety and health staff have effectively participated in a comprehensive investigation of medical program concerns, which include program implementation of job task analysis, access to exposure data, and administration of the short-term medical leave of absence program. DOE Federal safety and health personnel have increased their efforts to communicate directly with occupational medicine program staff and have been proactive with efforts to reduce medical program costs, increase program efficiency, and maintain compliance with current DOE requirements.
2. **Senior FEMP management has evaluated and is addressing occupational medicine program issues.** A FEMP action plan to address medical program issues was submitted to DOE and is scheduled to be completed by December 1998. The action plan addresses medical programs issues, including creation of a job task analysis matrix, outsourcing of the short-term medical leave of absence administration program, guidelines for the testing designated positions program, and automated access to employee exposure information. Ongoing efforts to enhance communications, restructure medical program management, and monitor the medical program projects are now coordinated with the medical director on a weekly basis.
3. **The FEMP occupational medicine program achieved substantial compliance (the highest rating assigned in an AAAHC survey) in five of eight AAAHC core standards and four of seven AAAHC adjunct standards that pertain specifically to occupational medical services.** The AAAHC surveyor noted substantial compliance for the following core medical program elements: patient rights, administration, quality of care, professional improvement, and facilities and environment. Adjunct standards pertaining to occupational medical services achieving substantial compliance were: immediate care services, pharmaceutical services, laboratory services, and diagnostic imaging. These findings indicate that the clinical staff provides quality medical care to employees, diagnostic services are comprehensive, and employees are treated with respect, consideration, and dignity. The medical program staff was knowledgeable of occupational medicine program services and interested in improving the quality of the medical program.

### Weaknesses and Issues Requiring Attention

1. **The FEMP site occupational medical director position does not have clearly defined roles and responsibilities or sufficient authority to adequately plan and direct the FEMP occupational medicine program.** Recent decisions by FEMP management to restructure the medical program organization has limited the medical director's authority for the planning and implementation of a comprehensive occupational health program as required by DOE Order 440.1A, Chapter 19, section b. The current management system that has the medical director and physician staff reporting to one senior manager and the clinic staff reporting through a

different safety program manager is confusing and does not support the Department's medical program policy, guidance, and requirements. The introduction of a temporary clinic manager that also does not report to the medical director limits the interfaces between the medical director and key FEMP staff that are required to coordinate with the medical program. Lacking clearly delineated roles, responsibilities, and authorities, the medical director has had difficulty communicating medical program implementation issues to senior management, which limits the effectiveness of the medical director position.

The medical director's position currently lacks a clearly defined method to ensure that line management responsibilities for providing information concerning potential health effects of employees resulting from FEMP projects and work planning have been effectively communicated to the medical program as required in DOE Order 440.1A, Chapter 19, paragraphs c.(2).(a) through c.(2).(c). Other medical program requirements, such as emergency planning, quality management programming, maintenance of a documented medical program (policies, procedures, protocols), and strategic program planning, are not clearly defined for the medical director position.

2. **A quality management and improvement plan specific to the occupational medicine program needs to be reviewed and updated per DOE Order 440.1 requirements.** The FEMP occupational medicine program does not have a comprehensive and integrated quality management program that evaluates the effectiveness of the occupational medicine program, the quality of the contracted medical program providers, and the integration of the medical program with related site programs (e.g., safety, industrial hygiene, and health physics and line management). A quality system to identify and correct deficiencies associated with the performance of patient care is not currently in place. DOE-FEMP and OH have begun to include the occupational medicine program in performance assessments, but the FEMP contractor does not have a systematic process. FEMP line management does not have a process to self-assess their involvement with medical program requirements and interfaces.

The FEMP internal medicine program audit process focuses on laboratory and diagnostic imaging procedures and does not include other clinical outcomes such as quality of care, medical surveillance documentation, or administrative issues. Although the medical program is currently working on several quality improvement projects, they have not been documented or analyzed within a formal quality improvement process. FEMP does not currently have a peer review process, medical provider evaluation procedure, or comprehensive credential file program for the professional staff that would meet minimum requirements for accreditation. Such processes are key elements of quality management for clinical medical practice and would satisfy ISM policy.

3. **The final disposition of FEMP medical records and exposure information records has not been coordinated with DOE Headquarters records management personnel and stakeholders.** Researchers and stakeholders have expressed an interest and concern in the final disposition plans for medical and exposure records at FEMP and other OH sites that are in the final stages of closure. The planned demolition of buildings that currently house these records will necessitate some near-term coordination and planning to accomplish inventory, packaging, ultimate location, and security of medical records. Federal records repository practices may limit the amount of allowable access to records, which would not satisfy the needs of researchers and stakeholders interested in accessing those specific records. The Office of Records Research Data and Access (EH-63) and Records Management (HR-7)

indicate they have not yet been involved in long-term disposition planning to meet both departmental and stakeholders' needs.

## **Conclusions**

This independent oversight review found that a majority of the core occupational program elements is currently in place at FEMP. Patient rights, administration, quality of care, professional improvement, and facilities and environment were substantially compliant with national standards. Immediate care services, pharmaceutical services, laboratory services, and diagnostic imaging were determined to provide an acceptable level of patient care.

The occupational medicine program at FEMP is in a state of transition as management responds to specific concerns in the near term and develops plans for site closure. The site medical director position and the occupational medicine program have not been provided the full support of senior management at FEMP. In 1998, longstanding concerns related to the medical program, including issues such as the creation of a job task analysis matrix, outsourcing of the short-term medical leave of absence administration program, guidelines for the testing designated positions program, and automated access to employee exposure information were raised. These concerns are now being addressed by FEMP management and closely monitored by OH and DOE-FEMP. Notwithstanding this recent progress, strategic issues associated with the program organization and functions still remain to be comprehensively identified and systematically addressed.

Quality management weaknesses in medical professional peer review processes and systems for evaluating the effectiveness of the medical program interfaces with other organizations and workers will be difficult to correct until the roles, responsibilities, and authorities of the medical director and the occupational medicine program are better defined, understood, and fully supported by site management. Quality improvement programs also need to be improved to ensure that activities within the clinical practice areas, such as medical records documentation, are consistently effective. As FEMP becomes one of the first of the major DOE sites to close, the long-term, post-closure interest of DOE with respect to worker medical and exposure records should be clearly defined.

### **3.0 OPPORTUNITIES FOR IMPROVEMENT**

The review identified opportunities for improvement in three major areas: medical director roles and responsibilities, quality management program, and records disposition. The potential enhancements are not intended to be prescriptive. Rather, they are intended to be reviewed and evaluated by DOE and contractor management, and modified as appropriate to meet DOE and site-specific objectives and expectations.

#### **Medical Director Roles and Responsibilities**

The roles and responsibilities for the medical director position should be defined to reflect the requirements of the DOE contractor occupational medicine program. The intent of DOE policy and guidance is that the medical director establish the contractor occupational medicine program, including planning and implementation, supervision of and direction to the professional staff, and integration of the medical program with other stakeholders (e.g., line management, workers, and the community). The medical director should be held accountable for the quality of the medical program and the performance of the staff through a formalized quality management program. Such a program should include a formal peer review process and medical provider evaluation program that is designed to identify and correct weaknesses in the medical program. Effective processes to correct identified deficiencies should be established and formalized. FEMP management should also have a process to formally review and evaluate the medical director performance in planning, implementing, and assessing the medical program. FEMP management should provide regular direction and feedback to the medical director. The medical director and management should communicate and coordinate identified deficiencies in the medical program and jointly resolve those deficiencies within the established FEMP management systems.

#### **Quality Management Program**

FEMP needs to continue the development of a quality management and quality improvement program that is specifically focused on the requirements for maintaining a comprehensive contractor occupational medicine program. The occupational medicine program should expand its current quality management activities to institute a professional peer review process and medical provider evaluation program that reviews clinical practices and provides procedures for correcting identified deficiencies.

FEMP management should include occupational medicine program requirements in its performance assessments to determine the effectiveness of program planning and implementation as well as the medical program linkages to the overall site safety and health program. Periodic assessments of work plans, project plans, and actual work activities that have the potential for health effects should be reviewed to determine whether the medical program was aware of the hazards, and whether employees that could be exposed to hazardous materials or conditions are in appropriate medical surveillance programs.

#### **Medical Records Disposition**

EM and OH personnel should contact the Office of Records Research Data and Access (EH-63) and Records Management (HR-7) to determine the scope and complexity of the post-closure FEMP medical and exposure records storage, security, and access issue. Although adequate records storage currently exists at the site, the interest in these records by researchers and stakeholders may influence the final disposition on where and how the records should be stored.

## **APPENDIX A**

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### **ACCREDITATION ASSOCIATION FOR AMBULATORY HEALTH CARE, INC. SURVEY COMMENTS FERNALD ENVIRONMENTAL MANAGEMENT PROJECT OCCUPATIONAL MEDICINE PROGRAM**

#### **Introduction**

As part of its normal survey process, AAAHC provides detailed evaluation results to the site. The AAAHC results include a rating (i.e., substantially compliant, partially compliant or non-compliant) for each of the applicable standards. The standards are published in the “Accreditation Association Handbook for Ambulatory Health Care” and describe organizational characteristics that the AAAHC believes to be essential for high-quality patient care. For those standards that are partially compliant or non-compliant the surveyor provides written comments about the observed weakness.

The AAAHC report for FEMP consisted of approximately 130 pages of completed evaluation forms, which included supporting comments. The AAAHC also identified a set of potential improvements that would be needed to obtain certification. The Office of Oversight developed the following summary of the AAAHC comments.

#### **AAAHC Assessment**

The FEMP occupational medicine program was in substantial compliance in nine of the 15 standards determined to be applicable to the AAAHC accreditation process. The areas of substantial compliance included:

- Rights of patients
- Administration
- Quality of care provided
- Professional improvement
- Facilities and environment
- Immediate and urgent care services
- Pharmaceutical services
- Pathology and laboratory services
- Diagnostic imaging services.

The areas of partial compliance included:

- Clinical records
- Emergency services
- Occupational health services
- Teaching and publication activities.

The areas of non-compliance included:

- Governance
- Quality management and improvement.

While many elements of an effective occupational medicine program are in place, several areas of weakness were noted in areas of governance, quality management, clinical records, emergency services, and occupational health services, which are impacting the quality of the medical program. The AAAHC surveyor indicated that stabilizing the organization, completing current projects (job task analysis and access to exposure data) aimed at improving the ability of the medical staff to target examinations, and correcting and improving services critical to current, past, and future workers should be completed before any attempts to seek accreditation are considered. The AAAHC survey should be utilized as a self-assessment tool that provides feedback on key areas of occupational health services that can be improved.

The following paragraphs summarize key AAAHC comments related to partial and non-compliant survey standards.

### **Governance**

The governing body of the organization (i.e., FEMP) is responsible for establishing and monitoring the appropriate professional delegation for the operation and performance of the organization. The responsibilities include determining the missions, goals, and objectives of the organization; establishing an organizational structure and specifying functional relationships among the various components of the organization; adopting policy and procedures for the orderly development and management of the organization; ensuring that quality of care is evaluated and that identified problems are appropriately addressed; and maintaining effective communication throughout the organization.

Policies and procedures do not reflect the recent changes in the organizational structure. Supervisor responsibilities are not clearly defined for several key positions, including the medical director. Meetings occur without documentation. There was no peer review or formal evaluations for medical providers. Credential files are incomplete. Policies and procedures for the credential process and procedures to ensure that medical provider credentials are current are not in place.

### **Quality Management and Improvement**

The FEMP occupational medicine program does not have a formal quality improvement program that meets AAAHC standards. There is no formal peer review process. The organization is improving quality but is not quantifying the problems or documenting the outcomes.

The internal assessment process focuses on laboratory and diagnostic imaging and does not include clinical outcomes. The professional and administrative staff should understand, support, and participate in a program of quality management and improvement. Health care practitioners should participate in the development and application of the criteria used to evaluate the care they provide.



## **Clinical Records**

Chart organization is confusing. It is difficult to identify the location of different types of information. This situation often results in incorrectly filed information. Problem lists (which included information such as diagnosis, allergies, medication, and immunizations) were missing information and were therefore incomplete.

## **Emergency Services**

Medical program participation with ambulance personnel and offsite medical services has not been done as frequently as planned because of budget and time constraints. Coordination and communication with offsite medical facilities (a medical program function) should be maintained to ensure appropriate care for mass causality or contamination incidents.

## **Occupational Health Services**

Occupational and environmental histories are not adequately documented on employee charts. Individual exposure data is not available. IH consults are available for individual patients' issues, but IH exposure data is not generally available. Medical providers will need to provide better documentation for their review of occupational/environmental history and preventative counsel for each chart. Work site visits should be documented.